



# GOLD GV Water boiler — Series 3



User's information manual

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result, causing property damage, personal injury or loss of life.

Do not store or use **gasoline or other flammable vapors and liquids** in the vicinity of this or any other appliance.

#### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately **call your gas supplier from a neighbor's phone**. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.



# Please read this page first

## **Hazard definitions**

The following defined terms are used throughout this manual to bring attention to the presence of hazards of various risk levels or to important information concerning the life of the product.

DANGER

Indicates presence of hazards that **will cause** severe personal injury, death or substantial property damage.

WARNING

Indicates presence of hazards that **can cause** severe personal injury, death or substantial property damage.

CAUTION

Indicates presence of hazards that **will or can cause** minor personal injury or property damage.

NOTICE

Indicates special instructions on installation, operation or maintenance that are important but not related to personal injury or property damage.

# Boiler service and maintenance

The User's information manual provides information to the boiler owner/user for routine operation and maintenance and emergency shutdown. Detailed information on boiler installation, operation, start-up, service and parts is included in the GV boiler manual. The GV boiler manual is intended only for use by a qualified service technician.

# How to use this manual . . .

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То	Read/use	Pages
Learn precautions	Warnings and definitions	1, 2, and 3
Prevent air is piped to boiler per manual. Read list of air contaminants you must avoid. Have boiler air piped in if you can't avoid.		4
Maintain boiler	and derivation included in the manda.	
Locate boiler components  How the boiler works and illustration.		10 – 11
Start — or — Shutdown boiler  Use the Lighting instruction sheet for the gas valve installed on your boiler. Ask your service technician if you are unsure which one.		12 or 13
Troubleshoot common problems/solutions table to resolve typical heating system/boiler problems.		14 - 15



# STOP!! — Read before proceeding

#### **WARNING**

Failure to adhere to the guidelines on this page can result in severe personal injury, death or substantial property damage.

#### Boiler service and maintenance —

- To avoid electric shock, **disconnect electrical supply** before performing maintenance.
- To avoid severe burns, allow boiler to cool before performing maintenance.
- You must maintain the boiler as outlined in the manual and have the boiler started up and serviced at least annually by a qualified service technician to ensure boiler/system reliability.

## **Boiler operation** —

- Do not block flow of combustion or ventilation air to boiler. This boiler is equipped with a control which will automatically shut down the boiler should air or vent be blocked. If vent or air blockage is easily accessible and removable, remove it. The boiler should attempt to restart within an hour. If blockage is not obvious or cannot be removed, have the boiler and system checked by a qualified service technician.
- Should overheating occur or gas supply fail to shut off, do not turn off or disconnect electrical supply to pump. Instead, shut off the gas supply at a location external to the appliance.
- Do not use this boiler if any part has been under water.
   Immediately call a qualified service technician to inspect the boiler and to replace any part of the control system and any gas control, which has been under water.

#### Boiler water -

- DO NOT use petroleum-based cleaning or sealing compounds in boiler system. Water seal deterioration will occur, causing leakage between sections and damage to heating system components. This can result in substantial property damage.
- DO NOT use "homemade cures" or "boiler patent medicines". Serious damage to boiler, personnel and/or property may result.
- Continual fresh makeup water will reduce boiler life. Mineral build-up in sections reduces heat transfer, overheats cast iron, and causes section failure. Addition of oxygen and other gases can cause internal corrosion. Leaks in boiler or piping must be repaired at once to prevent makeup water.
- Do not add cold water to hot boiler. Thermal shock can cause sections to crack.



# Prevent combustion air contamination —

### Air contamination

Common household and hobby products often contain fluorine or chlorine compounds. When these chemicals pass through the boiler, they can form strong acids in the vent system or boiler. The acid can eat through the vent or boiler wall, causing serious damage and presenting a

possible threat of flue gas spillage into the building.

Please read the information below. If the contaminating chemicals will be present, have your installer pipe the boiler air from outside per the Boiler manual.

WARNING

If the boiler is installed in **any area likely to cause contamination**, or if products which would contaminate the air cannot be removed, you must **pipe combustion air to the boiler** air intake. Contaminated combustion air will damage the boiler and vent system, resulting in possible severe personal injury, death or substantial property damage.

Do not operate a GV boiler in a laundry room or pool facility, for example, without using ducted outside air. These areas will always contain contaminants.

Products to avoid	Areas likely to have contaminants	
Spray cans containing chloro/fluorocarbons	Dry cleaning/laundry areas and establishments	
Permanent wave solutions	Swimming pools	
Chlorinated waxes/cleaners	Metal fabrication plants	
Chlorine-based swimming pool chemicals	Beauty shops	
Calcium chloride used for thawing	Refrigeration repair shops	
Sodium chloride used for water softening	Photo processing plants	
Refrigerant leaks	Auto body shops	
Paint or varnish removers	Plastic manufacturing plants	
Hydrochloric acid/muriatic acid	Furniture refinishing areas and establishments	
Cements and glues	New building construction	
Antistatic fabric softeners used in clothes dryers	Remodeling areas	
Chlorine-type bleaches, detergents, and cleaning solvents found in household laundry rooms	Garages with workshops	
Adhesives used to fasten building products and other similar products		

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# Perform maintenance per schedule below

Service technician (see following pages for instructions)		Owner maintenance (see following pages for instructions)	
	Inspect:  • Any problems reported by owner  • Boiler area  • Air openings  • Flue gas vent	Daily	<ul><li>Check boiler area</li><li>Check air openings</li><li>Check pressure gauge</li></ul>
ANNNUAL START-UP	<ul> <li>Boiler heating surfaces</li> <li>Water piping</li> <li>Condensate drain system</li> </ul> Service: <ul> <li>Lubricate blower motor</li> <li>Lubricate any circulators requiring oil</li> </ul> Start-up:	Monthly	<ul> <li>Check boiler interior piping</li> <li>Check venting system</li> <li>Check air vents</li> <li>Check condensate drain system</li> <li>Check relief valve</li> </ul>
Rev	<ul> <li>Perform start-up per manual</li> <li>Check/test: <ul> <li>Check gas piping for leaks</li> <li>Check cold fill &amp; operating pressures</li> <li>Check temperature mixing system</li> <li>Check/maintain components - vents, limits, expansion tank, gauges, igniter</li> <li>Inspect &amp; operate relief valve</li> </ul> </li> <li>Review:</li> </ul>	Periodically	<ul><li>Test low water cutoff (if used)</li><li>Clean vent termination/air intake screens</li></ul>
		Every 6 months	<ul><li>Oil blower motor</li><li>Operate relief valve</li></ul>
	Review maintenance procedures with owner	End of season	Shut down procedure



# User maintenance procedures

# Boiler must be serviced and maintained

WARNING

The boiler should be inspected and started annually, at the beginning of the heating season, only by a qualified service technician. In addition, the maintenance and care of the boiler designated on page 5 and explained on the following pages must be performed to assure maximum boiler efficiency and reliability. Failure to service and maintain the boiler and system could result in equipment failure, causing possible severe personal injury, death or substantial property damage.

#### NOTICE

The following information provides detailed instructions for completing the maintenance items listed in the maintenance schedule, page 5. In addition to this maintenance, the boiler must be serviced and started up at the beginning of each heating season by a qualified service technician.

# —— DAILY ——

#### Check boiler area

WARNING

To prevent potential of severe personal injury, death or substantial property damage, eliminate all materials discussed below from the boiler vicinity. If contaminants are found:

Remove products immediately from the area. If they have been there for an extended period, call a qualified service technician to inspect the boiler and vent system for possible damage from acid corrosion.

If products cannot be removed, immediately call a qualified service technician to install an outside combustion air source for the boiler (if not already installed).

- 1. Combustible/flammable materials Do not store combustible materials, gasoline or any other flammable vapors or liquids near the boiler. Remove immediately if found.
- 2. Air contaminants Products containing chlorine or fluorine, if allowed to contaminate the boiler intake air, will cause acidic condensate in the vent and boiler. This will cause significant damage to the vent and/or boiler if allowed to continue. Read the list of potential materials listed on page 4 of this manual. If any of these products are in the room from which the boiler takes its combustion air, they must be removed immediately or the boiler combustion air must be supplied from outside. See WARNING above.

## Check air openings

- Verify that combustion and ventilation air openings to the boiler room and/or building are open and unobstructed.
- Verify that boiler vent discharge and air intake are clean and free of obstructions. Remove any debris on the air intake or flue exhaust openings.

# Check boiler pressure/temperature gauge

- Make sure the pressure reading on the boiler pressure/temperature gauge does not exceed 24 psig. Higher pressure may indicate a problem with the expansion tank.
  - Contact a qualified service technician if problem persists.



# User maintenance procedures (cont.)

#### - MONTHLY -

## Check boiler interior piping

- 1. Remove boiler jacket top.
- Visually inspect for leaks around internal piping, circulators, relief valve and other fittings. Immediately call a qualified service technician to repair any leaks.

WARNING

Have leaks fixed at once by a qualifed service technician. Continual fresh makeup water will reduce boiler life. Minerals can build up in sections, reducing heat transfer, overheating cast iron, and causing section failure.

WARNING

Do not use **petroleum-based cleaning or sealing compounds** in boiler system. Severe damage to boiler and system components can occur, resulting in possible severe personal injury, death or substantial property damage.

## **Check venting system**

1. Visually inspect the flue gas vent piping for any signs of blockage, leakage or joints or deterioration of the piping. Notify your qualified service technician at once if you find any problem.

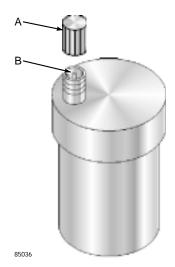
WARNING

Failure to inspect the vent system as noted above and have them repaired by a qualifed service technician can result in vent system failure, causing severe personal injury or death.

## Check automatic air vents (if used)

- 1. See Figure 1.
- 2. Remove the cap from any automatic air vent in the system and check operation by depressing valve B slightly with the tip of a screwdriver.
- 3. If the air vent valve appears to be working freely and not leaking, replace cap A, twisting all the way on.
- 4. Loosen cap A one turn to allow vent to operate.
- 5. Have vent replaced if it does not operate correctly.

Figure 1 Automatic air vent





# User maintenance procedures (cont.)

## - MONTHLY -

#### Check condensate drain system

- 1. While the boiler is running check the discharge end of the condensate drain tubing.
- 2. Make sure no flue gas is escaping from the condensate drain tubing by holding your fingers in front of the tubing discharge.
- If you do notice flue gas escaping from the drain tubing, this indicates a dry drain trap. Call your qualified service technician to install a condensate drain line check valve kit.

#### CAUTION

Under some circumstances a GV vent system may not produce enough condensate to keep the condensate trap full of liquid. If the trap is not full, small amounts of flue products can be emitted into the boiler room through the condensate drain line. Contact a qualified service technician to install a condensate drain line check valve kit.

4. Verify that the condensate drain tubing is unobstructed by squeezing it. Check the entire length of the condensate drain tubing, including the corrugated tube between the boiler vent outlet tee and the boiler jacket side.

#### Check boiler relief valve

- Inspect the boiler relief valve and the relief valve discharge pipe for signs of weeping or leakage.
- 2. If the relief valve often weeps, the expansion tank may not be working properly. Immediately contact your qualified service technician to inspect the boiler and system.

#### PERIODICALLY

# Test low water cutoff (if installed)

1. If the system is equipped with a low water cutoff, test the low water cutoff periodically during the heating season, following the low water cutoff manufacturer's instructions.

#### Clean vent termination & air intake screens

- 1. Remove all lint and debris from both the boiler air intake screen and the flue discharge screen.
- The boiler control module will sense blockage of the air intake or flue and lockout if the blockage is excessive. It will signal the failure by flashing the appropriate indicator lights on the control board.
- If removing the debris does not allow the boiler to operate correctly afterwards, contact your qualifed service technician to inspect the boiler and vent/air systems.



# User maintenance procedures (cont.)

# EVERY 6 MONTHS

#### Oil blower motor

- Remove the jacket top panel to access the blower motor.
- Use only S.A.E. 20 motor oil. DO NOT use household universal oils.

WARNING

Use only S.A.E. 20 motor oil to lubricate the blower motor. Do not use common universal household oils.

- 3. See Figure 2.
- 4. Place a few drops of oil in each of the two oiler cups on the side of the blower motor.

Figure 2 Blower motor



## Operate boiler relief valve

1. Before proceeding, verify that the relief valve outlet has been piped to a safe place of discharge, avoiding any possibility of scalding from hot water.



To avoid water damage or scalding due to valve operation, a metal discharge line must be connected to relief valve outlet and run to a safe place of disposal. This discharge line must be installed by a qualifed heating installer or service technician in accordance with the instructions in the **Boiler manual**. The discharge line must be terminated so as to eliminate possibility of severe burns should the valve discharge.

- 2. Read the boiler pressure/temperature gauge to make sure the system is pressurized.
- 3. Lift the relief valve top lever slightly, allowing water to relieve through the valve and discharge piping.
- 4. If water flows freely, release the lever and allow the valve to seat. Watch the end of the relief valve discharge pipe to ensure that the valve does not weep after the line has had time to drain. If the valve weeps, lift the seat again to attempt to clean the valve seat. If the valve continues to weep afterwards, contact your qualified service technician to inspect the valve and system.
- 5. If water does not flow from the valve when you lift the lever completely, the valve or discharge line may be blocked. Immediately shutdown the boiler, following the instructions on the inside jacket top Lighting Instructions. Call your qualified service technician to inspect the boiler and system.

# END OF SEASON

# Follow boiler shutdown procedure

- 1. Follow "TO TURN OFF GAS TO APPLIANCE" on the Lighting instructions on the inside of the jacket top panel. You will also find these instructions on pages 12 and 13 of this manual. Use the Lighting instruction for the gas valve model installed on the boiler.
- 2. Do not drain system unless exposure to freezing temperatures will occur.
- 3. Do not drain the system if it is filled with an antifreeze solution.
- 4. Do not shut down boilers used for domestic water heating. They must operate year-round.



# How the boiler works . . .

# 1 Control module

The GCM control module responds to signals from the room thermostat, air pressure switch, inlet water sensor and boiler limit circuit to operate the circulators, gas valve, igniter and blower. When a room thermostat calls for heat, the GCM starts the system circulator and blower.

The GCM runs the blower long enough to purge the boiler flue passages, then turns on the igniter and lets it warm up.

After a 15-second warmup, the GCM opens the gas valve, turns the igniter off, and checks for flame. The flame must come on within 4 seconds or the GCM will shut down and try the full cycle again.

When the room thermostat is satisfied, the GCM turns off the boiler components and waits for the next heat call.

The GCM indicator lights show normal sequence when the lights are on steady. When a problem occurs, the GCM flashes combinations of lights which indicate the most likely reason for the problem.

# $oxed{2}$ Transformer

The control transformer reduces line voltage to 24 volts for the gas valve and limit circuit.

# 3 Blower

The blower pulls in air and mixes it with gas from the gas valve. The blower forces this mixture into the burner for combustion inside the boiler chamber.

# 4 Air pressure switch

The air pressure switch signals the control module, telling the control module whether air is moving through the blower.

# $oldsymbol{f 5}$ Water temperature limit switch

The water temperature limit switch turns off the gas valve if the temperature in the boiler goes above its setting. (The circulators will continue to run as long as there is a call for heat.)

# 6 System circulator

The system circulator circulates water through the external (system) piping. The flow rate of the circulator is controlled by the GCM, depending on the temperature of the water entering the boiler sections.

# $oldsymbol{7}$ Bypass circulator

The GCM operates the bypass circulator to mix hot water from the boiler outlet with colder return water from the system when needed to prevent condensation of flue gases in the boiler.

When the water returning to the boiler is below 140 °F, the GCM regulates the bypass circulator and system circulator flow rates to raise the water temperature up to 140 °F before it enters the boiler sections. By balancing these flow rates, the GCM can protect against condensation even if return water is as low as 60 °F.

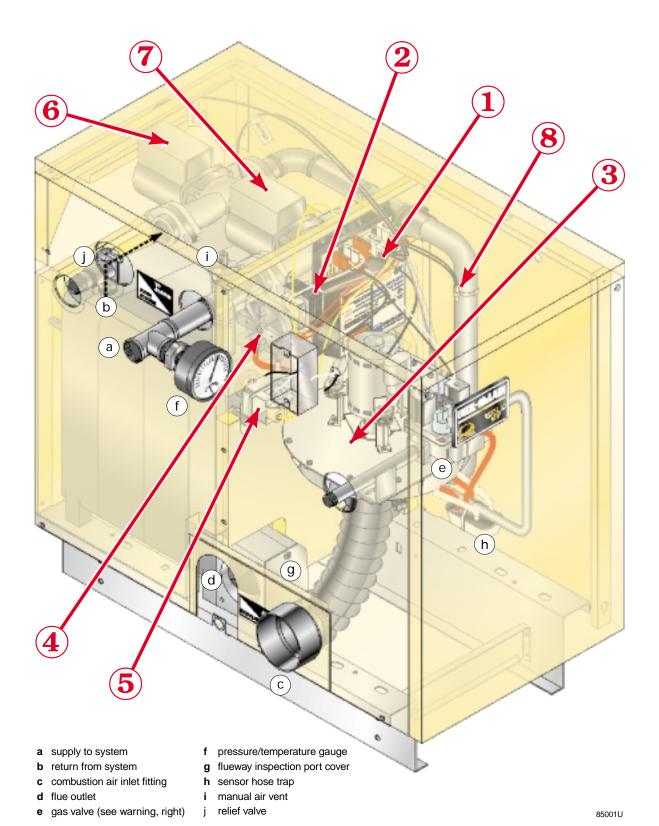
# f 8 Water temperature sensor

The water temperature sensor monitors the temperature of the water entering the boiler sections. The sensor sends this information to the GCM, telling the GCM how much to adjust the circulator flow rates to provide at least  $140\,^{\circ}\text{F}$  entering water.



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# **GOLD GV** Water boiler — Series 3





# Lighting instructions — 7200DERN gas valve

WARNING

Before attempting to start the boiler, check the boiler pressure temperature gauge. If boiler and system are full of water and properly pressurized, the gauge should read at least 12 psig on most systems. Operating the boiler without proper water content will damage boiler and controls and could result in severe personal injury, death or substantial property damage.

## FOR YOUR SAFETY READ BEFORE OPERATING

WARNING

If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by
- B. Before OPERATING, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor. See below.
- C. Use only your hand to depress and move Selector arm on gas valve. Never use tools. If the arm will not depress or move by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control, which has been under water.

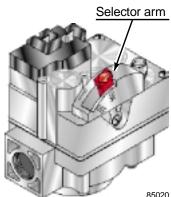
#### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

## OPERATING INSTRUCTIONS

- **STOP!** Read the safety information above on this label.
- Set the thermostat to lowest setting.
- Turn off all electrical power to the appliance.
- Remove jacket top panel.
- This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- Depress **Selector arm** slightly and move left  $\curvearrowleft$  to **OFF**.
- Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you don't smell gas, go to the next step.
- Depress **Selector arm** slightly and move right  $\curvearrowright$  to **ON**.
- Turn on all electric power to the appliance.
- 10. Set thermostat to desired setting.
- 11. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO **APPLIANCE**" below and call your service technician or gas supplier.
- 12. Replace jacket top panel.

#### Robertshaw gas valve model 7200DERN



moved to OFF unless arm is pushed in slightly. DO NOT force.

# TO TURN OFF GAS TO THE APPLIANCE

- Set the thermostat to lowest setting.
- Turn off all electric power to the appliance if service is to be performed.
- Remove jacket top panel.
- Depress **Selector arm** slightly and move left  $\curvearrowleft$  to **OFF**. Do not force.
- Replace jacket top panel.

NOTE: Selector arm cannot be



# Lighting instructions — 36E gas valve

WARNING

Before attempting to start the boiler, **check the boiler pressure temperature gauge**. If boiler and system are full of water and properly pressurized, the gauge should read at least 12 psig on most systems. Operating the boiler without proper water content will damage boiler and controls and could result in severe personal injury, death or substantial property damage.

### FOR YOUR SAFETY READ BEFORE OPERATING

WARNING

If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand
- B. Before OPERATING, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor. See below.
- C. Use only your hand to turn the Control knob on gas valve. Never use tools. If the knob will not turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control, which has been under water.

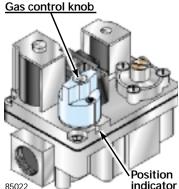
#### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone.
   Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

# **OPERATING INSTRUCTIONS**

- 1. **STOP!** Read the safety information above on this label.
- 2. Set the thermostat to lowest setting.
- 3. Turn off all electrical power to the appliance.
- 4. Remove jacket top panel.
- 5. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- 6. Turn Gas control knob to OFF.
- 7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you don't smell gas, go to the next step.
- 8. Turn Gas control knob to ON.
- 9. Turn on all electric power to the appliance.
- 10. Set thermostat to desired setting.
- 11. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" below and call your service technician or gas supplier.
- 12. Replace jacket top panel.

# White-Rodgers gas valve model 36E



# TO TURN OFF GAS TO THE APPLIANCE

- 1. Set the thermostat to lowest setting.
- 2. Turn off all electric power to the appliance if service is to be performed.
- 3. Remove jacket top panel.
- 4. Turn Gas control knob to OFF.
- Replace jacket top panel.



# Common problems and solutions

Symptom	Common Causes	Possible Corrections
Rapid cycling — boiler turns on and off frequently	Thermostat installed where drafts or heat affect reading	Locate thermostat on inner wall away from heat sources or cool drafts.
	Heat anticipator in thermostat adjusted incorrectly	Adjust thermostat per manufacturer's instructions.
	Incorrect limit setting	Set limit according to system needs.  Maximum setting is 220°F. Increase limit setting to decrease cycling.
	Insufficient water flow through boiler	Check all valves to and from boiler. Return to proper setting.
		Confirm circulator size.
Frequent release of water through relief valve	Expansion tank sized too small	Call qualified service technician to check expansion tank operation and size.
	Flooded expansion tank	Call qualified service technician to check expansion tank operation.
	Inoperative limit control	Call qualified service technician to replace limit control.
Need to frequently add makeup water	Leaks in boiler or piping	Have qualified service technician repair leaks at once to avoid constant use of makeup water. Makeup water can cause mineral deposits which, in turn, can cause boiler section failure. Do not use petroleumbase stop-leak compounds.
Black water condition	Oxygen corrosion due to leaks in boiler and piping	Have qualified service technician repair at once. Keep pH of water between 7.0 to 8.5.



# Common problems and solutions (continued)

Symptom	Common Causes	Possible Corrections
Popping or percolating noise heard in boiler	Mineral deposits in sections due to constant use of makeup water	Call qualified service technician to de-lime boiler, if necessary. In some cases, deposits will be too heavy to remove with de-liming procedures.
		Have qualified service technician repair leaks to eliminate need for constant makeup water.
	Incorrect pH of boiler water	Call qualified service technician to check pH level and correct. pH should be maintained between 7.0 to 8.5.
	Insufficient water flow through boiler	Check all valves to and from boiler. Return to proper setting.
		Confirm circulator size.
Metal flakes found in vent outlet or vent starter tee — flueway corrosion	Contaminated combustion air supply — See page 4 in this manual.	Remove any contaminating products. See page 4 in this manual.
		Provide outside air for combustion. Kit available through Weil-McLain distributor. Have qualified service technician pipe-up kit.
	Condensation of combustion gases in boiler sections	Have qualified service technician check operation of mixing system. Repair/replace if necessary.
Some radiators or baseboard units do not heat or are noisy	Air in system	Bleed air from system through air vents in radiators or baseboard units.
	Low system pressure	Fill to correct pressure.
		Check for leaks in boiler or piping. Have qualified service technician repair at once.
	High limit set too low	Adjust high limit to higher setting.

# Weil-McLain Limited Warranty for Residential & Commercial Cast Iron Boilers

- ◆ RESIDENTIAL WATER WARRANTY—Limited Lifetime
- ◆ RESIDENTIAL STEAM WARRANTY—Limited 10 Year
- ◆ COMMERCIAL WARRANTY—Limited 10-Year

**NOTE:** The residential steam and water warranties do not cover residential boilers installed in buildings other than one or two family dwelling units, unless they are buildings with individual boilers for each dwelling unit.

# First Year-(All Residential & Commercial Cast Iron Boilers)

#### **Limited Warranty for Cast Iron Boilers:**

Weil-McLain warrants that its cast iron boilers are free from defects in material and workmanship for one year from the date of installation. If any parts are found to be defective in manufacture, Weil-McLain will provide replacement of such defective parts.

# Second Through Tenth Year-(Residential Water/Steam) Second Through Tenth Year-(Commercial Water/Steam) Limited Warranty for cast iron sections:

Weil-McLain warrants that the cast iron sections of its water and steam boilers are free from defects in material and workmanship from the date of installation for the second through the tenth year. If, during such time period, any section is found to be defective, Weil-McLain will provide replacement for the original cast iron section(s).

#### Eleventh Year and Beyond - (Residential Water Only) Limited Warranty for Cast Iron Sections:

Weil-McLain warrants that the cast iron sections of its residential water boilers are free from defects in material and workmanship for the eleventh year and beyond from the date of installation. If, during such time period, any section(s) is found to be defective, Weil-McLain will provide replacement for the original cast iron section(s) upon the payment of a proportionate charge based on the time the boiler has been in service. The proportionate charge will be equal to the appropriate percentage of the list price of such section(s) at the time the warranty claim is made, and will be determined as follows:

11th year - 5%; 12th year - 10%; 13th year - 15%; 14th year - 20%; 15th year - 25%; 16th year - 30%; 17th year - 35%; 18th year - 40%; 19th year - 45%; 20th year - 50%; 21st year - 55%; 22nd year - 60%; 23rd year - 65%; 24th year - 70%; 25th year and beyond - 75%.

#### **All Residential & Commercial Cast Iron Boilers**

These warranties are subject to the condition that the boiler must have been installed by a heating contractor whose principal occupation is the sale and installation of plumbing, heating and/or air conditioning equipment.

#### These warranties do not cover:

- Components that are part of the heating systems, but were not furnished by Weil-McLain as a part of the boiler.
- The workmanship of any installer of Weil-McLain's boilers. In addition, this warranty does not assume any liability of any nature for unsatisfactory performance caused by improper installation.
- Any costs for labor for removal and reinstallation of the alleged defective part, transportation to Weil-McLain, if necessary, and any other materials necessary to perform the exchange.
- Improper burner adjustments, control settings,care or maintenance. Information is included in the installation Instructions, Owner's Information Manual and/or Startup, Service and Maintenance Instructions, and other printed technical material furnished by Weil-McLain with the boiler.
- Boilers operated with combustion air contaminated externally by chemical vapors or with improper fuel additives, or with water conditions which may have caused unusual deposits in the cast iron sections.

These warranties extend only to the first retail purchaser of the boiler and only to a boiler that has not been moved from its original installation site.

THE WARRANTIES DESCRIBED ABOVE ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY. WEIL-McLAIN EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY.

For prompt product warranty claims, notify the installer who, in turn, will notify the Weil-McLain distributor from whom he purchased the boiler. If this action does not result in warranty resolution, contact Weil-McLain Consumer Relations Department, 500 Blaine Street, Michigan City, Indiana 46360-2388, with details in support of the warranty claim. Alleged defective part or parts must be returned through trade channels in accordance with the Weil-McLain procedure currently in force for handling returned goods for the purpose of inspection to determine cause of failure. Weil-McLain will furnish new part(s) to an authorized Weil-McLain distributor who, in turn will furnish the new part(s) to the heating contractor who installed the boiler. If you have any questions about the coverage of this warranty, contact Weil-McLain at the address above.



Weil-McLain 500 Blaine Street Michigan City, IN 46360-2388 http://www.weil-mclain.com